

# Newborn Product Application Guide

## The American Academy of Pediatrics Recommends

- Health care professionals should use appropriate environmental, non-pharmacological (behavioral), and pharmacological interventions to prevent, reduce, or eliminate the stress and pain of neonates.
- Health care institutions should develop and implement patient care policies to assess, prevent, and manage pain in neonates, including those receiving palliative care.

*SafetaC*<sup>®</sup>  
TECHNOLOGY

 MÖLNLYCKE<sup>®</sup>  
HEALTH CARE

# SafetaC<sup>®</sup> use for neonatal and pediatric care

TECHNOLOGY



**Mepitel<sup>®</sup>**  
Wound contact layer



**Mepilex<sup>®</sup> Ag**  
Absorbent soft silicone dressing with silver



**Mepilex<sup>®</sup>**  
Absorbent foam dressing



**Mepilex<sup>®</sup> Lite**  
Absorbent thin foam dressing



**Mepilex<sup>®</sup> Transfer**  
Soft silicone exudate transfer dressing



**Mepilex<sup>®</sup> Border**  
Absorbent self-adherent bordered foam dressing



**Mepilex<sup>®</sup> Border Lite**  
Absorbent self-adherent bordered thin foam dressing



**Mepitac<sup>®</sup>**  
Soft silicone tape



**Mepiform<sup>®</sup>**  
Self-adherent silicone gel sheeting for scar management

SafetaC<sup>®</sup> is a patented soft silicone technology designed specifically for wound management dressings. The soft silicone layer provides gentle but secure adhesion to dry, intact skin, while the hydrophobic nature prevents the dressing from adhering to the moist wound bed.

Depending on the type of wound, the exudate level and the need for topical antibiotics, clinicians may choose from several SafetaC<sup>®</sup> products to maximize the healing environment.

## Partial Thickness Wounds



Mepiform<sup>®</sup> dressing or Mepitac<sup>®</sup> tape may be used to protect healing wounds and fragile tissue.



Mepilex<sup>®</sup> Transfer, Mepilex<sup>®</sup> or Mepilex<sup>®</sup> Lite dressings may be fenestrated to fit around tube sites.



Mepilex<sup>®</sup> Border Lite dressing offers flexibility and mobility while allowing protection of fragile tissue

## CPAP Mask Protection



Mepilex<sup>®</sup> Lite or Mepilex<sup>®</sup> Transfer dressings may be customized to use for skin protection under CPAP mask or prongs.

## Pressure Ulcers



Mepilex<sup>®</sup> foam dressing over occipital pressure ulcer.

## Fixation



Mepitac<sup>®</sup> tape may be used in areas of sensitivity to secure non-life sustaining devices.

## IV Infiltration and Extravasation



Mepitel<sup>®</sup> contact layer may be left in place for several days to protect fragile tissue. Gels, other topical agents and outer dressing may be changed as needed.



Mepilex<sup>®</sup> Transfer dressing protects the wound bed and allows exudate to pass to a secondary absorptive dressing (e.g., gauze).



Mepilex<sup>®</sup> Border Lite dressing is an all-in-one dressing for low exuding wounds. Flexible and conformable.



Mepilex<sup>®</sup> Lite foam dressing is highly conformable for non to low exuding wounds.

## Surgical Wounds



Mepilex<sup>®</sup> Border or Mepilex<sup>®</sup> Border Lite dressings may be used to protect surgical wounds.

## Peristomal Applications



Mepilex<sup>®</sup> Lite may be used to protect fragile peristomal tissue from traditional adhesives found in pouching products.



Pouch may be applied over Mepilex<sup>®</sup> Lite. Exposed edges may need to be secured with Mepitac<sup>®</sup> tape

# ANATOMY AND PHYSIOLOGY OF NEWBORN SKIN

## Concerns Over the Use of Traditional Adhesives

### Stratum Corneum

- The outer most layer of cells which form the epidermal barrier:
  - 10-20 layers in full term infants
  - 2-3 layers at 30 weeks gestational age
  - Virtually no layers are present at less than 24 weeks of gestation
- Protective functions against toxins and infectious agents deficient in premature infants

### Dermal Instability

- Collagen is deposited in the dermis of the fetus in the last trimester, preventing accumulation of fluid in this layer
- Premature infants exhibit edema because of less collagen and fewer elastic fibers in the dermis
- Edema may put the infant at risk for ischemic injury due to reduced blood flow

### Epidermal & Dermal Cohesion

- Fibers that connect the epidermis at the epidermal junction of the skin are widely spaced and fewer in numbers in premature infants
- Premature infants are at a higher risk for injury from adhesive removal and blistering from friction or thermal injury
- The bond of adhesives to the epidermis may be stronger than the bond of the epidermis to the dermis, resulting in stripping when adhesives are removed

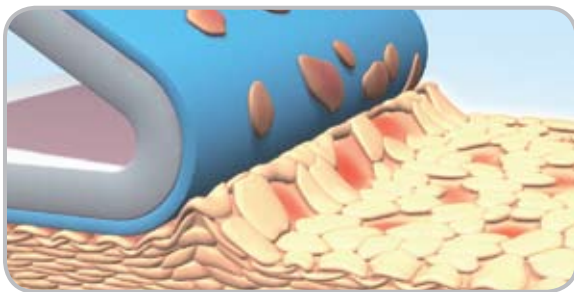
### Concerns over use of traditional adhesive

- Adhesives may be applied and removed daily in the neonatal and pediatric ICU environments
- Adhesive removal can result in stripping and disruption to skin surfaces
- Alteration in skin barrier function has been shown in premature infants after one removal of adhesive tape
- Adhesive removal is sometimes facilitated by the use of solvents. Solvents, however, may present a danger of toxicity to the premature infant.

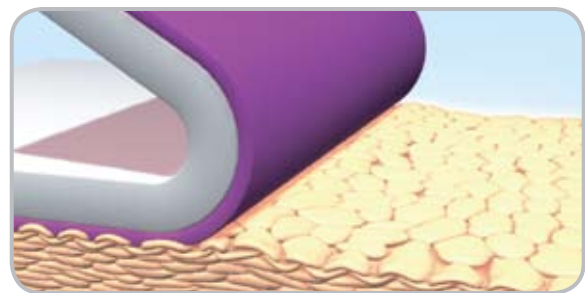
## No stripping of epidermal cell on dressing removal

Dressings with **Safetac**<sup>®</sup> technology do not adhere to the moist wound, yet adhere gently to the surrounding skin, minimizing trauma and pain at removal.

### Traditional adhesives



### Safetac<sup>®</sup> TECHNOLOGY



- References:** Dykes PJ, Heggie R, Hill SA. Effects of adhesive dressings on the stratum corneum of the skin. *Journal of Wound Care*. 2001; 10(2): 7-10
- Lund, C., Kuller, J., Lott, J., Lane, A., Raines, D. (1999). Neonatal Skin Care: The Scientific Basis for Practice. *Journal of Obstetric, Gynecologic and Neonatal Nursing*, 28, 241-254.
- Prevention and Management of Pain and Stress in the Neonate (RE9945). Policy Statement of the American Academy of Pediatrics. *Pediatrics*. 2000; 105(2); 454-461.



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